SEQUENCE LISTING

<110> Vertino, Paula M.

<120> TMS1 Compositions and Methods of Use

<130> E0355/7003/ERG/MAT

<140> US 09/691,763
<141> 2000-10-18

<150> US 60/159,975
<151> 1999-10-18

<160> 27

<170> FastSEQ for Windows Version 3.0

<210> 1
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<212> DNA
<213> Homo Sapiens

<400> 1

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gttaaggtct ccgatgctca taggcctcac attttagaga gggatgaatg tccaataagc 360
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agatgagagg gaaaaataaa ggattccaaa tatccccctt gggaagtaga gtcaggattc 480
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ccaggcctgc actttataga ccagcaccgg      gctgcgctta tcgcgagggt cacaaacgtt
2160
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<210> 2
<211> 770
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (75)...(662)

<400> 2

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gggatcctgg agcc atg ggg cgc gcg cgc gac gcc atc ctg gat gcg ctg        110
                Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu
                 1               5                  10

gag aac ctg acc gcc gag gag ctc aag aag ttc aag ctg aag ctg ctg        158
Glu Asn Leu Thr Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu
         15                  20                  25

tcg gtg ccg ctg cgc gag ggc tac ggg cgc atc ccg cgg ggc gcg ctg        206
Ser Val Pro Leu Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu
     30                  35                  40

ctg tcc atg gac gcc ttg gac ctc acc gac aag ctg gtc agc ttc tac        254
Leu Ser Met Asp Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr
 45                  50                  55                  60

ctg gag acc tac ggc gcc gag ctc acc gct aac gtg ctg cgc gac atg        302
Leu Glu Thr Tyr Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met
                 65                  70                  75

ggc ctg cag gag atg gcc ggg cag ctg cag gcg gcc acg cac cag ggc        350
Gly Leu Gln Glu Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln Gly
             80                  85                  90

tct gga gcc gcg cca gct ggg atc cag gcc cct cct cag tcg gca gcc        398
Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala Pro Pro Gln Ser Ala Ala
         95                  100                 105

aag cca ggc ctg cac ttt ata gac cag cac cgg gct gcg ctt atc gcg        446
Lys Pro Gly Leu His Phe Ile Asp Gln His Arg Ala Ala Leu Ile Ala
    110                 115                 120

agg gtc aca aac gtt gag tgg ctg ctg gat gct ctg tac ggg aag gtc        494
Arg Val Thr Asn Val Glu Trp Leu Leu Asp Ala Leu Tyr Gly Lys Val
125                 130                 135                 140
```

```
ctg acg gat gag cag tac cag gca gtg cgg gcc gag ccc acc aac cca      542
Leu Thr Asp Glu Gln Tyr Gln Ala Val Arg Ala Glu Pro Thr Asn Pro
                145                 150                 155

agc aag atg cgg aag ctc ttc agt ttc aca cca gcc tgg aac tgg acc      590
Ser Lys Met Arg Lys Leu Phe Ser Phe Thr Pro Ala Trp Asn Trp Thr
            160                 165                 170

tgc aag gac ttg ctc ctc cag gcc cta agg gag tcc cag tcc tac ctg      638
Cys Lys Asp Leu Leu Leu Gln Ala Leu Arg Glu Ser Gln Ser Tyr Leu
        175                 180                 185

gtg gag gac ctg gag cgg agc tga ggctccttcc cagcaacact ccggtcagcc     692
Val Glu Asp Leu Glu Arg Ser  *
    190                 195

cctggcaatc ccaccaaatc atcctgaatc tgatcttttt atacacaata tacgaaaagc    752
cagcttgaaa aaaaaaaa                                                 770
```

<210> 3
<211> 195
<212> PRT
<213> Homo Sapiens

<400> 3

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Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu Glu Asn Leu Thr
 1               5                  10                  15
Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu Ser Val Pro Leu
            20                  25                  30
Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu Leu Ser Met Asp
        35                  40                  45
Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr Leu Glu Thr Tyr
    50                  55                  60
Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met Gly Leu Gln Glu
65                  70                  75                  80
Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln Gly Ser Gly Ala Ala
                85                  90                  95
Pro Ala Gly Ile Gln Ala Pro Pro Gln Ser Ala Ala Lys Pro Gly Leu
            100                 105                 110
His Phe Ile Asp Gln His Arg Ala Ala Leu Ile Ala Arg Val Thr Asn
        115                 120                 125
Val Glu Trp Leu Leu Asp Ala Leu Tyr Gly Lys Val Leu Thr Asp Glu
    130                 135                 140
Gln Tyr Gln Ala Val Arg Ala Glu Pro Thr Asn Pro Ser Lys Met Arg
145                 150                 155                 160
Lys Leu Phe Ser Phe Thr Pro Ala Trp Asn Trp Thr Cys Lys Asp Leu
                165                 170                 175
Leu Leu Gln Ala Leu Arg Glu Ser Gln Ser Tyr Leu Val Glu Asp Leu
            180                 185                 190
Glu Arg Ser
        195
```

<210> 4
<211> 626
<212> DNA
<213> Homo Sapiens

<400> 4

```
agcgcctttt gctggagggc aacggaccgg ggcggggagt cgggagacca gagtgggagg     60
aaggcgggga gtccaggttc cgccccggag ccgacttcct cctggtcggc ggctgcagcg    120
```

gggtgagcgg cggcagcggc cggggatcct ggagccatgg ggcgcgcgcg cgacgccatc 180
ctggatgcgc tggagaacct gaccgccgag gagctcaaga agttcaagct gaagctgctg 240
tcggtgccgc tgcgcgaggg ctacgggcgc atcccgcggg gcgcgctgct gtccatggac 300
gccttggacc tcaccgacaa gctggtcagc ttctacctgg agacctacgg cgccgagctc 360
accgctaacg tgctgcgcga catgggcctg caggagatgg ccgggcagct gcaggcggcc 420
acgcaccagg gtgagccgcc cccgttcccc tccaccccgt ctttcccctc cacccacacc 480
agcgcttacc ccgcgggctc ttccgctttc tgttcctcct acccctaaac aaagctgctc 540
taccggaaag gaggctcccc acgcttggcc taccgaccaa cgggaccccg gccccacggc 600
gggaagggaa gggaagggga tcactt 626

<210> 5
<211> 340
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (67)...(339)

<400> 5
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ggagcc atg ggg cgc gcg cgc gac gcc atc ctg gat gcg ctg gag aac 108
Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu Glu Asn
1 5 10

ctg acc gcc gag gag ctc aag aag ttc aag ctg aag ctg ctg tcg gtg 156
Leu Thr Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu Ser Val
15 20 25 30

ccg ctg cgc gag ggc tac ggg cgc atc ccg cgg ggc gcg ctg ctg tcc 204
Pro Leu Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu Leu Ser
35 40 45

atg gac gcc ttg gac ctc acc gac aag ctg gtc agc ttc tac ctg gag 252
Met Asp Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr Leu Glu
50 55 60

acc tac ggc gcc gag ctc acc gct aac gtg ctg cgc gac atg ggc ctg 300
Thr Tyr Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met Gly Leu
65 70 75

cag gag atg gcc ggg cag ctg cag gcg gcc acg cac cag g 340
Gln Glu Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln
80 85 90

<210> 6
<211> 91
<212> PRT
<213> Homo Sapiens

<400> 6
Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu Glu Asn Leu Thr
1 5 10 15
Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu Ser Val Pro Leu
20 25 30
Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu Leu Ser Met Asp
35 40 45
Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr Leu Glu Thr Tyr
50 55 60

```
Gly Ala Glu Leu Thr Ala Asn Val Leu    Arg Asp Met Gly Leu Gln Glu
65                  70                  75                  80
Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln
                85                  90
```

<210> 7
<211> 57
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (3)...(56)

<400> 7

```
gc tct gga gcc gcg cca gct ggg atc cag gcc cct cct cag tcg gca        47
   Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala Pro Pro Gln Ser Ala
    1               5                  10                  15

gcc aag cca g                                                       57
Ala Lys Pro
```

<210> 8
<211> 18
<212> PRT
<213> Homo Sapiens

<400> 8

```
Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala Pro Pro Gln Ser Ala Ala
 1               5                  10                  15
Lys Pro
```

<210> 9
<211> 356
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (3)...(258)

<400> 9

```
gc ctg cac ttt ata gac cag cac cgg gct gcg ctt atc gcg agg gtc        47
   Leu His Phe Ile Asp Gln His Arg Ala Ala Leu Ile Ala Arg Val
    1               5                  10                  15

aca aac gtt gag tgg ctg ctg gat gct ctg tac ggg aag gtc ctg acg       95
Thr Asn Val Glu Trp Leu Leu Asp Ala Leu Tyr Gly Lys Val Leu Thr
                20                  25                  30

gat gag cag tac cag gca gtg cgg gcc gag ccc acc aac cca agc aag      143
Asp Glu Gln Tyr Gln Ala Val Arg Ala Glu Pro Thr Asn Pro Ser Lys
            35                  40                  45

atg cgg aag ctc ttc agt ttc aca cca gcc tgg aac tgg acc tgc aag      191
Met Arg Lys Leu Phe Ser Phe Thr Pro Ala Trp Asn Trp Thr Cys Lys
        50                  55                  60
```

```
gac ttg ctc ctc cag gcc cta agg gag    tcc cag tcc tac ctg gtg gag      239
Asp Leu Leu Leu Gln Ala Leu Arg Glu Ser Gln Ser Tyr Leu Val Glu
     65                  70                  75

gac ctg gag cgg agc tga g gctccttccc agcaacactc cggtcagccc           288
Asp Leu Glu Arg Ser  *
 80

ctggcaatcc caccaaatca tcctgaatct gatcttttta tacacaatat acgaaaagcc    348
agcttgaa                                                             356
```

<210> 10
<211> 84
<212> PRT
<213> Homo Sapiens

<400> 10

```
Leu His Phe Ile Asp Gln His Arg Ala Ala Leu Ile Ala Arg Val Thr
 1               5                  10                  15
Asn Val Glu Trp Leu Leu Asp Ala Leu Tyr Gly Lys Val Leu Thr Asp
            20                  25                  30
Glu Gln Tyr Gln Ala Val Arg Ala Glu Pro Thr Asn Pro Ser Lys Met
        35                  40                  45
Arg Lys Leu Phe Ser Phe Thr Pro Ala Trp Asn Trp Thr Cys Lys Asp
    50                  55                  60
Leu Leu Leu Gln Ala Leu Arg Glu Ser Gln Ser Tyr Leu Val Glu Asp
65                  70                  75                  80
Leu Glu Arg Ser
```

<210> 11
<211> 18
<212> DNA
<213> Homo Sapiens

<400> 11

```
gcactttata gaccagca                                                  18
```

<210> 12
<211> 18
<212> DNA
<213> Homo Sapiens

<400> 12

```
atttggtggg attgccag                                                  18
```

<210> 13
<211> 17
<212> DNA
<213> Homo Sapiens

<400> 13

```
tgggcctgca ggagatg                                                   17
```

<210> 14
<211> 22
<212> DNA
<213> Homo Sapiens

<400> 14

```
ccttcctggg catggagtcc tg                                             22
```

<210> 15
<211> 21
<212> DNA
<213> Homo Sapiens

<400> 15
ggagcaatga tcttgatctt c 21

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Primer

<400> 16
ggttgtagtg gggtgagtgg t 21

<210> 17
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic Primer

<400> 17
caaaacatcc ataaacaaca acaca 25

<210> 18
<211> 19
<212> DNA
<213> Homo Sapiens

<400> 18
ttgtagcggg gtgagcggc 19

<210> 19
<211> 22
<212> DNA
<213> Homo Sapiens

<400> 19
aacgtccata aacaacaacg cg 22

<210> 20
<211> 803
<212> DNA
<213> Mus Musculus

<220>
<221> CDS
<222> (162)...(743)

<400> 20
gggaaagaac aggagctgta agaaaagagg gtgggggagt cccagcatgc ccatcggcct 60
aagcagctga cttcctggtc ttggcgggct ggcagcaggc aggctgagca ggcgagcagc 120
agcaagagta aaaggtgacc gcggctgccc accccagagc c atg ggg cgg gca cga 176
Met Gly Arg Ala Arg

```
                                                  1               5

gat gcc atc ctg gac gct ctt gaa aac ttg tca ggg gat gaa ctc aaa      224
Asp Ala Ile Leu Asp Ala Leu Glu Asn Leu Ser Gly Asp Glu Leu Lys
                 10                  15                  20

aag ttc aag atg aag ctg ctg aca gtg caa ctg cga gaa ggc tat ggg      272
Lys Phe Lys Met Lys Leu Leu Thr Val Gln Leu Arg Glu Gly Tyr Gly
             25                  30                  35

cgc atc cca cgc ggg gcc ctg ctg cag atg gac gcc ata gat ctc act      320
Arg Ile Pro Arg Gly Ala Leu Leu Gln Met Asp Ala Ile Asp Leu Thr
         40                  45                  50

gac aaa ctt gtc agc tac tat ctg gag tcg tat ggc ttg gag ctc aca      368
Asp Lys Leu Val Ser Tyr Tyr Leu Glu Ser Tyr Gly Leu Glu Leu Thr
     55                  60                  65

atg act gtg ctt aga gac atg ggc tta cag gag ctg gct gag cag ctg      416
Met Thr Val Leu Arg Asp Met Gly Leu Gln Glu Leu Ala Glu Gln Leu
 70                  75                  80                  85

caa acg act aaa gaa gag tct gga gct gtg gca gct gca gcc agt gtc      464
Gln Thr Thr Lys Glu Glu Ser Gly Ala Val Ala Ala Ala Ala Ser Val
                 90                  95                 100

cct gct cag agt aca gcc aga aca gga cac ttt gtg gac cag cac agg      512
Pro Ala Gln Ser Thr Ala Arg Thr Gly His Phe Val Asp Gln His Arg
             105                 110                 115

caa gca ctc att gcc agg gtc aca gaa gtg gac gga gtg ctg gat gct      560
Gln Ala Leu Ile Ala Arg Val Thr Glu Val Asp Gly Val Leu Asp Ala
         120                 125                 130

ttg cat ggc agt gtg ctg act gaa gga cag tac cag gca gtt cgt gca      608
Leu His Gly Ser Val Leu Thr Glu Gly Gln Tyr Gln Ala Val Arg Ala
     135                 140                 145

gag acc acc agc caa gac aag atg agg aag ctc ttc agc ttt gtt cca      656
Glu Thr Thr Ser Gln Asp Lys Met Arg Lys Leu Phe Ser Phe Val Pro
150                 155                 160                 165

tcc tgg aac ctg acc tgc aag gac tcc ctc ctc cag gcc ttg aag gaa      704
Ser Trp Asn Leu Thr Cys Lys Asp Ser Leu Leu Gln Ala Leu Lys Glu
                 170                 175                 180

ata cat ccc tac ttg gtg atg gac ctg gag cag agc tga ggtatctttt      753
Ile His Pro Tyr Leu Val Met Asp Leu Glu Gln Ser  *
             185                 190

ccagctacat tatctagctc ctgactttgt atacacaatt tttgaaaaaa              803
```

<210> 21
<211> 193
<212> PRT
<213> Mus Musculus

<400> 21

```
Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu Glu Asn Leu Ser
 1               5                  10                  15
Gly Asp Glu Leu Lys Lys Phe Lys Met Lys Leu Leu Thr Val Gln Leu
```

```
            20                  25     30
Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu Leu Gln Met Asp
        35                  40                  45
Ala Ile Asp Leu Thr Asp Lys Leu Val Ser Tyr Tyr Leu Glu Ser Tyr
    50                  55                  60
Gly Leu Glu Leu Thr Met Thr Val Leu Arg Asp Met Gly Leu Gln Glu
65                  70                  75                  80
Leu Ala Glu Gln Leu Gln Thr Thr Lys Glu Glu Ser Gly Ala Val Ala
                85                  90                  95
Ala Ala Ala Ser Val Pro Ala Gln Ser Thr Ala Arg Thr Gly His Phe
            100                 105                 110
Val Asp Gln His Arg Gln Ala Leu Ile Ala Arg Val Thr Glu Val Asp
        115                 120                 125
Gly Val Leu Asp Ala Leu His Gly Ser Val Leu Thr Glu Gly Gln Tyr
    130                 135                 140
Gln Ala Val Arg Ala Glu Thr Thr Ser Gln Asp Lys Met Arg Lys Leu
145                 150                 155                 160
Phe Ser Phe Val Pro Ser Trp Asn Leu Thr Cys Lys Asp Ser Leu Leu
                165                 170                 175
Gln Ala Leu Lys Glu Ile His Pro Tyr Leu Val Met Asp Leu Glu Gln
            180                 185                 190
Ser
```

<210> 22
<211> 605
<212> DNA
<213> Rattus Norvegicus

<220>
<221> CDS
<222> (2)...(518)

<400> 22

```
t ttc aag ata aag ctg ctg aca gcg cca gtg cgg gaa ggc tat ggg cgc      49
  Phe Lys Ile Lys Leu Leu Thr Ala Pro Val Arg Glu Gly Tyr Gly Arg
   1               5                  10                  15

atc cca cgg ggg gcc ctg ctg cag atg gac ccc ata gac ctc act gat      97
Ile Pro Arg Gly Ala Leu Leu Gln Met Asp Pro Ile Asp Leu Thr Asp
             20                  25                  30

aaa ctc gtc agy tac tat ctg gag ggg tat ggc ttg gag ctc aca atg     145
Lys Leu Val Xaa Tyr Tyr Leu Glu Gly Tyr Gly Leu Glu Leu Thr Met
         35                  40                  45

act gtg ctt aga gac atg ggc ata cag gag ctg gct gag cag ctg caa     193
Thr Val Leu Arg Asp Met Gly Ile Gln Glu Leu Ala Glu Gln Leu Gln
     50                  55                  60

aag att atg gaa gag tct gga gct gtg gct act gca acc agt gtc cct     241
Lys Ile Met Glu Glu Ser Gly Ala Val Ala Thr Ala Thr Ser Val Pro
 65                  70                  75                  80

gct cag ggc aca gcc aga aca gaa cat ttt gtg gac caa cac agg caa     289
Ala Gln Gly Thr Ala Arg Thr Glu His Phe Val Asp Gln His Arg Gln
                 85                  90                  95

gca ctc att gcc agg gtc aca gaa gtt gat ggt ttg ctg gat gct ctg     337
Ala Leu Ile Ala Arg Val Thr Glu Val Asp Gly Leu Leu Asp Ala Leu
            100                 105                 110
```

```
tat ggc aat gtg ctg act gaa gga cag tac cag gca gtt cgt gca gag      385
Tyr Gly Asn Val Leu Thr Glu Gly Gln Tyr Gln Ala Val Arg Ala Glu
        115                 120                 125

acc acc aac caa aac aag atg agg aag ctc ttt agc ttt gct cca gcc      433
Thr Thr Asn Gln Asn Lys Met Arg Lys Leu Phe Ser Phe Ala Pro Ala
    130                 135                 140

tgg aac ctg acc tgc aag aac ttg ttc ctt gag gcc ttg agg caa aca      481
Trp Asn Leu Thr Cys Lys Asn Leu Phe Leu Glu Ala Leu Arg Gln Thr
145                 150                 155                 160

cag ccc tac ttg gtg aca gac ctg gaa cag agc tga g gtatcttttc        528
Gln Pro Tyr Leu Val Thr Asp Leu Glu Gln Ser  *
                165                 170

cagctacaca tctagctcct ggttttgtat acaaaatttt ctaaaaacaa gtttgtattt  588
gtgttttctc gaaaaaa                                                 605
```

<210> 23
<211> 171
<212> PRT
<213> Rattus Norvegicus

<220>
<223> Xaa can be any amino acid.

<400> 23

```
Phe Lys Ile Lys Leu Leu Thr Ala Pro Val Arg Glu Gly Tyr Gly Arg
 1               5                  10                  15
Ile Pro Arg Gly Ala Leu Leu Gln Met Asp Pro Ile Asp Leu Thr Asp
            20                  25                  30
Lys Leu Val Xaa Tyr Tyr Leu Glu Gly Tyr Gly Leu Glu Leu Thr Met
        35                  40                  45
Thr Val Leu Arg Asp Met Gly Ile Gln Glu Leu Ala Glu Gln Leu Gln
    50                  55                  60
Lys Ile Met Glu Glu Ser Gly Ala Val Ala Thr Ala Thr Ser Val Pro
65                  70                  75                  80
Ala Gln Gly Thr Ala Arg Thr Glu His Phe Val Asp Gln His Arg Gln
                85                  90                  95
Ala Leu Ile Ala Arg Val Thr Glu Val Asp Gly Leu Leu Asp Ala Leu
            100                 105                 110
Tyr Gly Asn Val Leu Thr Glu Gly Gln Tyr Gln Ala Val Arg Ala Glu
        115                 120                 125
Thr Thr Asn Gln Asn Lys Met Arg Lys Leu Phe Ser Phe Ala Pro Ala
    130                 135                 140
Trp Asn Leu Thr Cys Lys Asn Leu Phe Leu Glu Ala Leu Arg Gln Thr
145                 150                 155                 160
Gln Pro Tyr Leu Val Thr Asp Leu Glu Gln Ser
                165                 170
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<210> 24
<211> 713
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (75)...(605)

<400> 24

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ccacgcgtcc gacttcctcc tggtcggcgg ctgcagcggg gtgagcggcg gcagcggccg      60
gggatcctgg agcc atg ggg cgc gcg cgc gac gcc atc ctg gat gcg ctg        110
                Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu
                 1               5                  10

gag aac ctg acc gcc gag gag ctc aag aag ttc aag ctg aag ctg ctg        158
Glu Asn Leu Thr Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu
        15                  20                  25

tcg gtg ccg ctg cgc gag ggc tac ggg cgc atc ccg cgg ggc gcg ctg        206
Ser Val Pro Leu Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu
     30                  35                  40

ctg tcc atg gac gcc ttg gac ctc acc gac aag ctg gtc agc ttc tac        254
Leu Ser Met Asp Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr
 45                  50                  55                  60

ctg gag acc tac ggc gcc gag ctc acc gct aac gtg ctg cgc gac atg        302
Leu Glu Thr Tyr Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met
                65                  70                  75

ggc ctg cag gag atg gcc ggg cag ctg cag gcg gcc acg cac cag ggc        350
Gly Leu Gln Glu Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln Gly
            80                  85                  90

ctg cac ttt ata gac cag cac cgg gct gcg ctt atc gcg agg gtc aca        398
Leu His Phe Ile Asp Gln His Arg Ala Ala Leu Ile Ala Arg Val Thr
        95                  100                 105

aac gtt gag tgg ctg ctg gat gct ctg tac ggg aag gtc ctg acg gat        446
Asn Val Glu Trp Leu Leu Asp Ala Leu Tyr Gly Lys Val Leu Thr Asp
    110                 115                 120

gag cag tac cag gca gtg cgg gcc gag ccc acc aac cca agc aag atg        494
Glu Gln Tyr Gln Ala Val Arg Ala Glu Pro Thr Asn Pro Ser Lys Met
125                 130                 135                 140

cgg aag ctc ttc agt ttc aca cca gcc tgg aac tgg acc tgc aag gac        542
Arg Lys Leu Phe Ser Phe Thr Pro Ala Trp Asn Trp Thr Cys Lys Asp
                145                 150                 155

ttg ctc ctc cag gcc cta agg gag tcc cag tcc tac ctg gtg gag gac        590
Leu Leu Leu Gln Ala Leu Arg Glu Ser Gln Ser Tyr Leu Val Glu Asp
            160                 165                 170

ctg gag cgg agc tga ggctccttcc cagcaacact ccggtcagcc cctggcaatc        645
Leu Glu Arg Ser  *
        175

ccaccaaatc atcctgaatc tgatcttttt atacacaata tacgaaaagc cagcttgaaa      705
aaaaaaaa                                                              713
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<210> 25
<211> 176
<212> PRT
<213> Homo Sapiens

<400> 25

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Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu Glu Asn Leu Thr
 1               5                  10                  15
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Ala Glu Glu Leu Lys Lys Phe Lys        Leu Lys Leu Leu Ser Val Pro Leu
            20                  25                  30
Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu Leu Ser Met Asp
        35                  40                  45
Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr Leu Glu Thr Tyr
    50                  55                  60
Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met Gly Leu Gln Glu
65                  70                  75                  80
Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln Gly Leu His Phe Ile
                85                  90                  95
Asp Gln His Arg Ala Ala Leu Ile Ala Arg Val Thr Asn Val Glu Trp
            100                 105                 110
Leu Leu Asp Ala Leu Tyr Gly Lys Val Leu Thr Asp Glu Gln Tyr Gln
        115                 120                 125
Ala Val Arg Ala Glu Pro Thr Asn Pro Ser Lys Met Arg Lys Leu Phe
    130                 135                 140
Ser Phe Thr Pro Ala Trp Asn Trp Thr Cys Lys Asp Leu Leu Leu Gln
145                 150                 155                 160
Ala Leu Arg Glu Ser Gln Ser Tyr Leu Val Glu Asp Leu Glu Arg Ser
                165                 170                 175
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<210> 26
<211> 405
<212> DNA
<213> Homo Sapiens

<220>
<221> CDS
<222> (75)...(404)

<400> 26

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ccacgcgtcc gacttcctcc tggtcggcgg ctgcagcggg gtgagcggcg gcagcggccg      60
gggatcctgg agcc atg ggg cgc gcg cgc gac gcc atc ctg gat gcg ctg      110
                Met Gly Arg Ala Arg Asp Ala Ile Leu Asp Ala Leu
                 1               5                  10

gag aac ctg acc gcc gag gag ctc aag aag ttc aag ctg aag ctg ctg      158
Glu Asn Leu Thr Ala Glu Glu Leu Lys Lys Phe Lys Leu Lys Leu Leu
         15                  20                  25

tcg gtg ccg ctg cgc gag ggc tac ggg cgc atc ccg cgg ggc gcg ctg      206
Ser Val Pro Leu Arg Glu Gly Tyr Gly Arg Ile Pro Arg Gly Ala Leu
     30                  35                  40

ctg tcc atg gac gcc ttg gac ctc acc gac aag ctg gtc agc ttc tac      254
Leu Ser Met Asp Ala Leu Asp Leu Thr Asp Lys Leu Val Ser Phe Tyr
 45                  50                  55                  60

ctg gag acc tac ggc gcc gag ctc acc gct aac gtg ctg cgc gac atg      302
Leu Glu Thr Tyr Gly Ala Glu Leu Thr Ala Asn Val Leu Arg Asp Met
                 65                  70                  75

ggc ctg cag gag atg gcc ggg cag ctg cag gcg gcc acg cac cag ggc      350
Gly Leu Gln Glu Met Ala Gly Gln Leu Gln Ala Ala Thr His Gln Gly
             80                  85                  90

tct gga gcc gcg cca gct ggg atc cag gcc cct cct cag tcg gca gcc      398
Ser Gly Ala Ala Pro Ala Gly Ile Gln Ala Pro Pro Gln Ser Ala Ala
         95                  100                 105

aag cca g                                                           405
```

Lys Pro
110

<210> 27
<211> 110
<212> PRT
<213> Homo Sapiens

<400> 27

Met	Gly	Arg	Ala	Arg	Asp	Ala	Ile	Leu	Asp	Ala	Leu	Glu	Asn	Leu	Thr
1				5					10					15	
Ala	Glu	Glu	Leu	Lys	Lys	Phe	Lys	Leu	Lys	Leu	Leu	Ser	Val	Pro	Leu
		20					25					30			
Arg	Glu	Gly	Tyr	Gly	Arg	Ile	Pro	Arg	Gly	Ala	Leu	Leu	Ser	Met	Asp
	35					40					45				
Ala	Leu	Asp	Leu	Thr	Asp	Lys	Leu	Val	Ser	Phe	Tyr	Leu	Glu	Thr	Tyr
50					55					60					
Gly	Ala	Glu	Leu	Thr	Ala	Asn	Val	Leu	Arg	Asp	Met	Gly	Leu	Gln	Glu
65				70					75						80
Met	Ala	Gly	Gln	Leu	Gln	Ala	Ala	Thr	His	Gln	Gly	Ser	Gly	Ala	Ala
			85					90					95		
Pro	Ala	Gly	Ile	Gln	Ala	Pro	Pro	Gln	Ser	Ala	Ala	Lys	Pro		
		100					105					110			